

## Description of Charts

**CHART I. A. Average Temperature ( $^{\circ}$ F.) at Surface. B. Departure of Average Temperature from Normal.**—The average monthly temperature presented in Chart I-A is computed from the average daily maximum and the average daily minimum which in turn are computed from the daily maximum and minimum temperatures reported by some 225 first-order Weather Bureau stations and 700 cooperative stations. The departures from normal are presented in Chart I-B. They are based on the 30-year normals (1921-50) for the first-order Weather Bureau stations and on means of 25 years or more (mostly 1931-55) for the cooperative stations.

**CHART II. Total Precipitation.**—

**CHART III. A. Departure of Precipitation from Normal (inches). B. Percentage of Normal Precipitation.**—Chart II is based on daily precipitation records at about 800 Weather Bureau and cooperative stations. In Chart III the anomaly in the month's precipitation is shown as a departure from the normal total and as a percentage of the normal total. These anomalies show the deviations from the 30-year normals (1921-50) for about 225 first-order Weather Bureau stations in Charts III A and B, supplemented in Chart III-A by the deviation from means of 25 years or more (mostly 1931-55) for about 700 cooperative stations.

**CHART IV. Total Snowfall.**—

**CHART V. A. Percentage of Normal Snowfall. B. Depth of Snow on Ground.**—Chart IV gives the total depth in inches of unmelted snowfall as reported during the month by Weather Bureau and cooperative stations. This is converted in Chart V-A into a percentage of the normal total amount computed for each Weather Bureau station having at least 10 years of record. The depth of snow on ground is that reported by both Weather Bureau and cooperative stations as of 7:00 a. m. Eastern Standard Time on the last Monday of the month. This is reported only for the months December through April. The snowfall charts are presented each month November through April.

**CHART VI. A. Percentage of Sky Cover Between Sunrise and Sunset. B. Percentage of Normal Sky Cover Between Sunrise and Sunset.**—These charts are based on visual observations made hourly at Weather Bureau stations and averaged for the month. Sky cover includes, in addition to cloudiness, obscuration of the sky by fog, smoke, etc. Normal amount of sky cover is computed for stations having at least 10 years of record.

**CHART VII. A. Percentage of Possible Sunshine. B. Percentage of Normal Sunshine.**—Chart VII-A shows the amount of sunshine received in terms of percentage of the total hours of sunshine possible during the month. In Chart VII-B this is shown as a percentage of the normal number of hours of sunshine received. Normals are com-

puted for Weather Bureau stations having at least 10 years of record.

**CHART VIII. Average Daily Values of Solar Radiation, Direct and Diffuse.**—Plotted on the chart are the monthly means of daily total solar radiation, both direct and diffuse, in langley (gm. cal.  $\text{cm}^{-2}$ ) for all Weather Bureau stations which record this element. Supplementary data for which limits of accuracy are wider than for those data shown are drawn upon in making the analysis. The inset shows the percentages of the mean based on the period 1951-55.

**CHART IX. Tracks of Centers of Anticyclones at Sea Level.**—

**CHART X. Tracks of Centers of Cyclones at Sea Level.**—Centers which can be identified for 24 hours or more are tracked in these charts. Semi-permanent features such as the Great Basin and Pacific Highs and Colorado and Mexico Lows are not shown. The 7:00 a. m. EST positions are shown by open circles, with the intermediate positions at 6-hour intervals shown by solid dots. The date is given above the circle and the central pressure to whole millibars below. A dashed track indicates a regeneration rather than actual movement to the next position. Solid squares indicate position of stationary center for period shown beside it.

**CHART XI. Average Sea Level Pressure (mb.) and Surface Windroses.**—The average monthly sea level pressure is obtained from the averages of the 7:00 a. m. and 7:00 p. m. EST pressures reported at Weather Bureau stations. Windroses are based on the hourly wind directions (to 16 points of the compass) reported by Weather Bureau stations, each circle or arc indicating 5 percent of the time. The inset shows the departure of the average pressure from the normal average computed for each station having at least 10 years of record and for each  $10^{\circ}$  intersection in a diamond grid over the oceans from interpolated values read from the Historical Weather Maps for the 20 years of best coverage prior to 1940.

**CHARTS XII-XVII. Average Height, Temperature, and Resultant Winds, 850, 700, 500, 300, 200, and 100 mb.**—Height is given in geopotential meters and temperature in degrees Celsius. These are the averages of the 1200 GMT radiosonde reports. Wind speeds are given in knots; flag represents 50 knots, full feather 10 knots, and half feather 5 knots. Directions are shown to  $360^{\circ}$  of the compass. Winds are based on rawins at the indicated pressure surface and at 1200 GMT.

Tabulations of exact values of most of these charted elements for Weather Bureau stations are printed each month in Tables 2, 20, or 33 in *Climatological Data*, *National Summary*, and annual averages are presented in the CDNS Annual Issue each year.